

Date: Thu, 17 Feb 94 18:28:25 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #171
To: Info-Hams

Info-Hams Digest Thu, 17 Feb 94 Volume 94 : Issue 171

Today's Topics:

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 QSL info????

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 17 Feb 94 00:15:44 GMT
From: yale.edu!noc.near.net!news.delphi.com!BIX.com!hamilton@yale.arpa
Subject: callsign server info
To: info-hams@ucsd.edu

ah301@yfn.ysu.edu (Jerry Sy) writes:

>which port do I telnet to get to callsign server on
>cs.buffalo.edu ?

telnet callsign.cs.buffalo.edu 2000

Regards,
Doug Hamilton hamilton@bix.com Ph 508-358-5715

Hamilton Laboratories, 13 Old Farm Road, Wayland, MA 01778-3117

Date: Fri, 18 Feb 1994 00:29:26 GMT
From: agate!howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!hpscit.sc.hp.com!
cupnews0.cup.hp.com!news1.boi.hp.com!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Coax minimum-loss impeance
To: info-hams@ucsd.edu

Over on sci.electronics, someone was asking about how we came to 50 ohms as common for coax impedance. I posted the appended followup after some interesting calcs that I had not seen previously: I'd seen the "77 ohms for min loss" thing, but not the effects of dielectric noted here, and I thought folk here might be interested:

=====
Subject: Re: History of 50 ohms standard?
Newsgroups: sci.electronics

Richard Karlquist (rkarlqu@scd.hp.com) wrote:
: In article <CLBvpK.7q4@odin.corp.sgi.com>,
: Dave Chengson <chengson@chengson.mti.sgi.com> wrote:
: >Does anyone know the background/history of where 50 ohms came from?
: >Its been suggested that it came from WWII from the antenna folks
: >and it is rumored it was a relatively arbitrary impedance value.

: I believe this is discussed in the MIT Rad Lab books.
: With air dielectric, 74 ohms gives the minimum loss for a given
: outer diameter. 35 ohms give the highest power handling capability
: assuming air breakdown is the limiting factor. 50 ohms is a compromise
: about half way in between.

I remembered it as 77 ohms for the minimum loss, and just went thru the calcs to figure it out. Turned out to be 76.708 ohms ;-)
Now this is interesting, because it turned out to depend only on the ratio of inner to outer diameter, and expressed that way, was independent of dielectric, under the assumption that dielectric losses are negligible, which should be the case for practical coax cables at HF frequencies. I might add that this also assumes perfect surface conditions on the round (not stranded) conductors.

OK, carrying this one step further, the outer-diameter/inner-diameter ratio for min loss under these conditions is 3.59112:1. With air dielectric, this is the 77 ohm cable. But if the dielectric is polyethelene, commonly used in WWII vintage cables, the impedance

is ... 51.02 ohms! By the way, doing the same thing for solid Teflon gives 52.9 ohms, still really close to 50.

For those interested in the calcs:

$$Z_0 = 60 \ln(D/d) / (e^{.5})$$

where

Z_0 is characteristic impedance of coaxial line

D is inner diameter of outer conductor

d is outer diameter of inner conductor

e is dielectric constant of insulation

$$A_{100} = 4.34 * R_t / Z_0 + 2.78 * f * F_p * (e^{.5})$$

where

A_{100} is dB attenuation for 100 feet of line

R_t is total effective resistance at operating freq

f is operating frequency

F_p is power factor of dielectric at frequency f

(and the second term is generally negligible at HF, leaving $4.34 * R_t / Z_0$, for practical insulations.

Dissipation in the insulation favors lower impedance since the loss goes down with voltage)

$$R_t = .1 * f^{.5} * (1/d + 1/D)$$

You can reduce this: let $D/d = x$, then

$$A_{100} * D / (7.233E-3 * (e * f)^{.5}) = (x + 1) / \ln(x)$$

For a constant D, e and f, you want to minimize the right side for minimum attenuation. That leads to the D/d mentioned above.

Substitute $e=1$ into the Z_0 formula for air; $e=2.26$ for polyethelene, and $e=2.10$ for teflon.

73, K7ITM

Date: 17 Feb 1994 16:09:44 -0600

From: library.ucla.edu!agate!howland.reston.ans.net!cs.utexas.edu!not-for-mail@network.ucsd.edu

Subject: Hawaiian 2m repeaters?

To: info-hams@ucsd.edu

I'll be in Hawaii (on Maui and in Honolulu) from March 25-April 6 and was wondering if anyone could provide some advice as to good 2m repeaters...

Yes, I have a rpitr directory, but I was hoping for more specific advice.

Thanks!

Jason Hanson + 1510 Tripp Cir. #VI309 + (608)264-1079
U. of Wisconsin + Madison, WI 53706-1294 + Ham Radio:N9LEA (Extra)
jjhanso1@students.wisc.edu jhanson@macc.wisc.edu undergrad-Political Sci.

Date: 16 Feb 94 17:30:26
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!howland.reston.ans.net!
europa.eng.gtefsd.com!news.umbc.edu!eff!news.kei.com!ub!dsinc!netnews.upenn.edu!
mipg.upenn.edu!yee@ames.arpa
Subject: Iambic keyer paddles
To: info-hams@ucsd.edu

I am told that in general, right handed operators use the right paddle for the dash while the left paddle is used for the dit. OK no problem so far.

Is there a rationale behind this convention?

If right handed people use their right hand to send code, why do they do this? It seems to me that it would be much more convenient to send code with the left hand so that the right hand is kept free to copy incoming code. This is the same logic that is used with baseball mitts. Is it that strictly right handed people can not do this?

--

Medical Image Processing Group		Conway Yee, N2JWQ
411 Blockley Hall		EMAIL : yee@mipg.upenn.edu
418 Service Drive		VOICE : 1 (215) 662-6780
Philadelphia, PA 19104-6021 (USA)		FAX : 1 (215) 898-9145

Date: 16 Feb 1994 23:51:01 GMT
From: korie1!newsworthy.West.Sun.COM!abyss.West.Sun.COM!sunspot!myers@ames.arpa
Subject: John Ramsey
To: info-hams@ucsd.edu

In article DCt@news.direct.net, kg7bk@indirect.com (Cecil Moore) writes:
>Dana Myers (myers@sunspot.West.Sun.COM) wrote:
>: >But my approach was not, "you idiots don't know your ass from..."
>
>: The implication is that Jeff's approach was this. Do you know something we
>: don't?
>
>That has been Jeff's approach toward Ramsey for the year that I have been
>on Internet.

Keep in mind, Jeff's experience with Ramsey appears to pre-date your arrival
to the Internet.

>: In the 20 or so years I've been building kits, especially Heathkits,
>: I've had at least 90% of them work from the moment the power was turned on.
>
>Your experience has been different from mine. I had 100 times the trouble
>out of Heathkits that I had with Ramsey kits. You probably weren't around
>for the '50s when it was a miracle if a Heathkit ever worked.

Sure. Anyone can find from the callsign database my birthdate of 5/3/63. I
started building kits around the time I was 10.

>: I will say, flat out, that John Ramsey indeed bad-mouthed Jeff Gold by
>: name during a phone call with me despite the fact I asked him not to do so.
>: * Dana H. Myers KK6JQ
>
>I agree it was probably not a "politically correct" thing to do. But John
>may (or may not) share my attitude that anyone who calls another person
>a liar in public is less than human. And John probably doesn't appreciate
>his name being a line item on Internet so how about us taking this off
>line?

Hang on, slamming your customers is not only not politically correct, it is
bad business. It doesn't matter if they call you a liar. Anyway, why wouldn't
John appreciate his name being a line item on Internet?

* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are *
* (310) 348-6043 | mine and do not necessarily *
* Dana.Myers@West.Sun.Com | reflect those of my employer *

* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: Thu, 17 Feb 94 17:35:00 MST
From: news.mtholyoke.edu!news.byu.edu!news@uunet.uu.net
Subject: MINIMUF on HP42S calculators
To: info-hams@ucsd.edu

Some time ago I ported MINIMUF (a BASIC program for predicting MUF's) to my HP42S calculator. If anyone's interested in it, email me and I'll send you a copy. (It's free.)

--
Ed Haymore | AA6EJ
ed@byu.edu | Live long and prosper.

Date: Fri, 18 Feb 1994 00:11:19 GMT
From: agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!math.ohio-state.edu!
howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!col.hp.com!csn!server!
georgen@network.ucsd.edu
Subject: Nude QSL cards
To: info-hams@ucsd.edu

Jim Hollenback (jholly@cup.hp.com) wrote:

:
: No, I don't think your out of place. Would one send a nude QSL to a foreign
: country? I certainly hope not. In some counties they would be banned and
: could get the recieving ham in trouble. Besides, what sort of image are
: you presenting for the U.S.? If you would not send one to a foriegn country,
:
: Jim, WA6SDM
: jholly@cup.hp.com

:
Although correct that some countries would ban nude QSL cards, you will find that countries banning the card are relatively few. Not all countries are as "Prudish" as this country about nudity.

Nude cards do exist, I've gotten some from Japan. QSLs of this sort usually get answered more quickly.....

Signed: "Dirty Old Man Amateur"

George, W1XE/0
email georgen@redwood.stortek.com

Date: 17 Feb 1994 21:05:40 GMT
From: agate!msuinfo!news.mtu.edu!sol.ctr.columbia.edu!news.cs.columbia.edu!
news.boxhill.com!ariel!ken@network.ucsd.edu
Subject: pc.usl.edu more up-to-date than cs.buffalo.edu
To: info-hams@ucsd.edu

For what it's worth, the callsign server at
telnet pc.usl.edu. 2000
appears to be more up-to-date than the one at
telnet cs.buffalo.edu. 2000

(the former has my new mailing address, the latter does not!)

Does anyone know if the two servers are related?
They appear to use the same callsign server software...

73

Ken (ken@boxhill.com)

Date: Wed, 16 Feb 1994 22:24:20 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!constellation.ecn.purdue.edu!
wb9omc@purdue.edu
Subject: QSL info????
To: info-hams@ucsd.edu

I'm wondering if anyone out there has a CURRENT WORKING ADDRESS for

4N7ZZ, Tibi of Yugoslavia

I have no idea if he is dead or alive at this point, alive I certainly
HOPE, for his sake.

A long time ago I worked him and tried to send a QSL card, but I
suspect that events in the region probably zorched that one. For
all I know he might even have a different call by now.....

If anyone has any info, please email to:

wb9omc@harbor.ecn.purdue.edu

posting it here might also be useful on the off chance that anyone

else also needs QSL for 4N7ZZ.

Thanks,

Duane

Date: Tue, 15 Feb 1994 06:05:44 GMT
From: news2.uunet.ca!scilink!gts!torsqnt!problem!vigard!mdf@uunet.uu.net
To: info-hams@ucsd.edu

References <1994Feb11.003343.2956@ke4zv.atl.ga.us>, <bote.760946660@access1>,
<1994Feb12.160701.4407@ke4zv.atl.ga.us>
Subject : Re: Medium range point-to-point digital links

gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>So an 8 bit system would have a SNR of $10 \times \log(2^9) = 27$ db.

heywaitaminute. isnt the SNR a power ratio? you've
done a voltage ratio here ...

>per second. That requires a very good brickwall filter, however,
>so sampling is usually done at a somewhat higher rate, say 3X
>or 4X the highest audio frequency. Lets pick 3X. So our required
>bit rate is $16 \times 15,000 = 240$ kb/s.

but after your oversampling and filtering, you don't bother with
the "in-between" samples anymore ... you still end up transmitting
10kbps (in your example).

tho i would say that 8kilosamples/second @ 8bits is quite accepatable.
64kbps. using an ADPCM encoder you can chop this in half.

if you have a soundblaster, you can experiment with both sample rate
and resolution ... 4k samples/sec is too low, 6k is passable. fewer
than about 5 bits would probably make things very irritating.

>Or we can abandon voice grade radios for the links and use purpose
>built digital radios with higher baud rates. If we take a 56 kb
>WA4DSY RF modem (GRAPES), and couple that with an on the fly

or you could just get a pair of gunplexers. pricey, but you also
get the beginnings of a *very* high speed (>1Mbps) data link. voice/packet/
whatever.

price/performance/future: how much are gunplexers, how much are

: contrast, look at the GLOWING review of the MFJ regen receiver! Guess it
: doesn't spray RF. I do believe that MFJ has been quite a big QST advertiser, too.

As for the MFJ receiver, the RF amplifier in the front end probably
keeps the radiation down to an insignificant level.

Our obligation in Product Review is to present all the relevant facts
our members might want to know about a product. The failure to meet
spectral purity requirements (by more than "a dB or two," by the way)
certainly falls into the category of "relevant facts," as does the
demonstrated receiver strong-signal performance. Also in that
category, for a kit, is information about the quality of the assembly
instructions and manual, which we said were good. Sure, we covered
product performance, not only the building itself, because in the end,
the buyer wants the enjoyment of building *and* the performance.

Whether or not a manufacturer advertises in QST has no bearing on
whether a product is selected for review. I don't imagine you'll
believe that, but it's true. To keep it that way is one reason why the
person who selects what will be reviewed and the person in charge of
advertising are two different people who work in wholly separate
branches of the HQ organization.

--

Jon Bloom KE3Z jbbloom@arrl.org

Date: Wed, 16 Feb 1994 21:09:16 GMT
From: fluke!chuckb@beaver.cs.washington.edu
To: info-hams@ucsd.edu

References <9402152045.AA03433@rodgers.rain.com>, <CLAFwp.J8C@cup.hp.com>,
<2jrovm\$qss@reznor.larc.nasa.gov>lyon1.f
Subject : Re: Nude QSL cards

I received a QSL card from Japan that had a nude photo of a woman. That one
always gets comments when people look through my QSL card collection.

--

Chuck Bowden / WB7R / chuckb@etc.fluke.com / (206) 356-6228
Fluke Corporation / MS 232E / PO Box 9090 / Everett WA 98206-9090

Date: Wed, 16 Feb 1994 20:46:44 GMT
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!oakhill!yosemite.sps.mot.com!

ben@ames.arpa
To: info-hams@ucsd.edu

References <CL2txF.8EJ@srgenprp.sr.hp.com>, <2jqil1t\$rer@pegasus.cc.ucf.edu>,
<2jt93e\$ds9@charm.magnus.acs.ohio-state.edu>
Subject : Re: Nude amateur radio clubs

In article <2jt93e\$ds9@charm.magnus.acs.ohio-state.edu>, William VanHorne <wvhorn@magnus.acs.ohio-state.edu> wrote:

>In article <2jqil1t\$rer@pegasus.cc.ucf.edu>,
>John W. Meaker <jm6033@pegasus> wrote:

```
>  
>> I'm curious about nude QSL cards. Would anyone be offended if they  
>>received a QSL card in the mail with nude people on it? Would it be  
>>better to mail the card in an envelope? The envelope increases the  
>>cost of mailing a QSL considerably, and cost a consideration when you  
>>mail many cards.
```

>Even the **thought** of receiving a QSL card with a nude picture of the average
>ham on it is enough to offend me. I mean, seriously, folks. Leaf through
>any QST of recent (or even ancient) vintage, look at the pictures of the
>hams and imagine seeing them nude.

So, explain to me just how it is that someone is somehow a different person simply because they wear no clothing. The difference is only in the eye of the beholder...

- -ben

```
--
Ben Thornton                                Amateur call: WD5HLS
Internet: ben@yosemite.sps.mot.com          Motorola Inc., Austin, TX
Caution: Wearing clothes has been shown to cause permanent psychological
          dependence on textiles.  WEAR THEM AT YOUR OWN RISK.
```

Date: Fri, 18 Feb 1994 00:29:39 GMT
From: world!dts@uunet.uu.net
To: info-hams@ucsd.edu

References <CLCnIn.n3D@news.direct.net>, <2jurkaINNli7@abyss.West.Sun.COM>, <CLDzxC.JBr@news.direct.net>
Subject : Re: John Ramsey

In article <CLDzx.C.JBr@news.direct.net> kg7bk@indirect.com (Cecil Moore) writes:
>Dana Myers (myers@cypress.West.Sun.COM) wrote:
>: What other newsgroup should we discuss this in?

>
>How about
>
>alt.revenge.vendetta.character.assassination.hurt.Ramsey's.business?
>
>: a good business does not berate customers in the presence of other
>: customers. Are you suggesting this is not true? * Dana H. Myers KK6JQ
>
>Dana, I will give you the benefit of the doubt and for the sake of this
>discussion, accept what you have said as true... that John Ramsey berated
>Jeff Gold in a private telephone conversation with you. Now who is the
>worst offender of common decency and professional ethics... one who
>berates an individual in a private telephone conversation or one who
>berates an individual in public on Internet? Seeking professional revenge
>for a personal insult seems like extreme overkill to me.
>
>I didn't understand until you told me just now that Jeff was
>complaining about a personal problem rather than a transceiver. In my
>opinion, the only objective question to be answered here is, does Ramsey
>make a resonable transceiver for the money? The votes are obviously split
>and the free market will decide the answer.
>
>73, Cecil, kg7bk@indirect.com
>

The problem is, I think I'd be concerned with buying any more products from Ramsey. After all, if I had any problems, he might bad-mouth me all over the place too. It is bad business and really just plain unnecessary. Jeff appears to be a very nice guy for not filing a slander suit, especially given the ample evidence.

--

```
-----
Daniel Senie                Internet:    dts@world.std.com
Daniel Senie Consulting      n1jeb@world.std.com
508-365-5352                Compuserve:  74176,1347
-----
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Date: Wed, 16 Feb 1994 17:31:15 GMT
From: psinntp!arrl.org!jlbloom@uunet.uu.net
To: info-hams@ucsd.edu

References <1994Feb12.160701.4407@ke4zv.atl.ga.us>,
<1994Feb14.131000.8706@arrl.org>, <1994Feb15.160936.23577@ke4zv.atl.ga.us>
Subject : Re: Medium range point-to-point digital links

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: In article <1994Feb14.131000.8706@arrl.org> jlbloom@arrl.org (Jon Bloom (KE3Z)) writes:

: >Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: >: In article <bote.760946660@access1> bote@access1.digex.net (John Boteler) writes:

: >: >I have gotten a bug up my rear to configure our point-to-point

: >: >repeater linking system with digital paths ranging 20

: >: >to 40 miles apart.

: >[deleted]

: >: Well lets look at some numbers and see. Lets assume

: >: you want "broadcast" grade audio. That's a SNR of

: >: 50 db. Digital transmission regenerates bits so

: >: that above a certain threshold level the effective

: >: SNR is only the quantization error of the digital

: >: equipment itself. A crude way of looking at this

: >: is to consider this error as bit jitter at the lsb-1.

: >: So an 8 bit system would have a SNR of $10 \times \log(2^9) = 27$ db.

: >: That's obviously not good enough. 16 bits yields a SNR of

: >: $10 \times \log(2^{17}) = 51$ db which is close enough for our purposes.

: >

: >Use $20 \times \log(x)$, since we're talking about a voltage ratio. An easy rule

: >of thumb is 6 dB of SNR per bit of quantization. It's actually a tad

: >better than that, since the quantization error is not constant;

: >sometimes the error is a small fraction of one LSB, sometimes it's up

: >to half an LSB. 8 bits will give you about 50 or so dB of SNR.

: Well I don't want to get into a big fight about comparing power spectra

: ratios to voltage ratios, I'll just say that it's the power spectrum that

: you hear. If you want to use voltage ratios instead, that's fine, but it

: means I'll have to raise the "broadcast quality" number to the 90-100 db

: range instead of the 45-50 db range.

Ummm... 50 dB is 50 dB whether expressed as a voltage ratio or a power ratio. That's precisely why we use 20 as the coefficient when calculating decibels on the basis of voltage ratios. That is:

$$\text{power ratio} = [(V1)^2 / R] / [(V2)^2 / R] = (V1/V2)^2$$

so, in dB,

$$\begin{aligned} \text{dB} &= 10 \times \log[(V1/V2)^2] = 2 \times 10 \times \log(V1/V2) \text{ (by properties of logarithms)} \\ &= 20 \times \log(V1/V2) \end{aligned}$$

To talk about a "power dB" as separate from a "voltage dB" is meaningless, *unless* the two voltages you are comparing occur across different impedances, which is not the case here. Your statement makes no sense.

So, what's enough SNR, 50 dB or 100 dB? I suggest it's 50 dB. A compact disk gives you about 90 dB, and I'd hate to think we need better than CD quality on our voice links!

Of course, to realize the 50-dB SNR from the 8-bit system, the signals have to use all of the available signal range. If you use less, the SNR is reduced proportionally, as the signal is closer to the noise floor. That probably argues for something on the order of a 12-bit converter for "overhead." But with good ALC ahead of the A/D, 8 bits might be acceptable.

--

Jon Bloom KE3Z jbbloom@arrl.org

Date: Thu, 17 Feb 1994 19:52:01 GMT

From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!emory!wa4mei.ping.com!
nanovx!kd4dts!jcw@network.ucsd.edu

To: info-hams@ucsd.edu

References <CLAz5v.Iss@news.direct.net>, <fred-

mckenzie-160294172009@k4dii.ksc.nasa.gov>, <1994Feb17.143114.3229@ke4zv.atl.ga.us>

Subject : Re: John Ramsey

I built the 2m kit, and was I mad when I was done. I could never get the radio to produce 5 watts, and I had access to a Motorola spectrum analyzer. I talked to a Ramsey 'droid at the hamfest, and said "Oh yea, a tune up is about \$10." I said, "Cool, I'll send it off." I talked to the service department who said "Oh, it's \$50 to align a radio." I told them that was ridiculous, here's what the other guy told me. They said "Oh, well, if we don't have to fix it, there's no charge, except shipping." I told them "Fine, you won't have to fix anything, the radios not broke". I later find out that I have to pay \$50 to get my radio out of hock with these BOZO's. I say "Well?" They say "Well, adjusting the coil on the final (which isn't in the manual) was a repair". I tell them "F**K you, here's \$50 give me my damn radio back, I'm never buying another frickin' Ramsey product. Your sales people are liars, your technicians are liars, and you have my radio that I have to pay 50 bucks for, or I'll never see it again." I got it back, and it produces about 4 watts, still under spec. I'll never buy any Ramsey crap again.

- John, KD4DTS

--

John C. Wren (kd4dts) | "The UNIX operating system has a command, NICE,
jcw@kd4dts.atl.ga.us | which allows a user to voluntarily reduce the
..!emory!wa4mei!kd4dts!jcw | priority of his process, in order to be nice to

End of Info-Hams Digest V94 #171
